

CENTER FOR TRANSPORTATION RESEARCH

The Texas Department of Transportation (TxDOT) Alternative Delivery System (ADS) Decision-Support Tool V2.0 Presenters: Vassiliki A Demetracopoulou, William J. O'Brien, and Nabeel Khwaja

Background and Need

Increasing **complexity** in highway projects (urban corridors, increased traffic)

To respond to the need, a decision-making tool was developed (V1:2015, V2: 2019). The tool is **customized** to TxDOT's needs and suggests a method based on 12

criteria.



Design-Build becomes legislatively available in Texas in 2012 for projects >\$150M (amended access in 2019: 6 projects per biennium)

Therefore, the need arises for appropriate selection between the traditional (Design-Bid-Build) and alternative delivery (Design-Build)

Project Delivery Method Selection Criteria

Inherent Project Characteristics

- 1. Innovative methodologies
- 2. Incremental costs of alt. delivery
- 3. Designer-contractor integration
- 4. Schedule savings from D-C overlap
- 5. Procurement duration
- 6. Prescriptive project requirements
- 7. Stakeholder approval

Project **Risks**

- 8. Interaction with railroads
- 9. Outstanding permits
- 10. Outstanding utilities and coordination
- 11. Contractor availability D-
- 12. Contractor availability D-B-B

Project Goals

i. Lower capital cost

- ii. Higher cost predictability
- iii. Higher schedule predictability



Expert input from <u>21 experts</u> is captured in the tool's mechanism. These weights capture the collective experience and institutional context for Texas. Expert background includes:

- TxDOT (senior management and project experts)
- Industry (experienced designers and contractors)
- Federal Highway Administration (FHWA)

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collaborate. innovate. educate.